

1 TRKRPYPTRFDTLFPFFSRRKPRAKAPTPTPVMSAAVGGAEFHGFRGGGAAQLQRSRM
SEQ ID NO: 2 M-----TTSFVG-----PATSAPLKDH--KVQIPSFHGLRSSASALPRNA
SEQ ID NO: 4 M-----TTSFVG-----
SEQ ID NO: 6 M-----
SEQ ID NO: 7 M-----MSGAGIGGAEVHGFGRGA---AAQLPRSRV
SEQ ID NO: 8 M-----TTSFVG-----AAINIAVADDPNPKLQIHNFSGLKSTSNSLLSRR

60
61 LGRPLRVATPHAAAPAGGGSSSASIRAVSAPLKKDASEVKRSKVEIIKEKSNFLRYPLN
SEQ ID NO: 2 LSLP---SSTR-----SLSLIRAVSTPAQSETATVKSKEVIFKEQSNSFIRYPLN
SEQ ID NO: 4 LSLP---
SEQ ID NO: 6 -----
SEQ ID NO: 7 LGRPIRVAPPAAARP---GGASAGSIRAVSAPAKKDASEVKRSKVEIIKEKSNFLRYPLN
SEQ ID NO: 8 LHFQSFSPSN-----PSSIVRAVSTPAKPAAVEPKRSKVEIFKEQSNSFIRYPLN

120
121 EELVSEAPNINDSAVQOLIKEHGSYQQTDRDVRGQKNYSFMLRTKNPCGKVNPNOLYLYAMDT
SEQ ID NO: 2 EELVSEAPNINDSAVQOLIKEHGSYQQTDRDVRGQKNYSFMLRTKNPCGKVNPNOLYLYAMDT
SEQ ID NO: 4 EDILTDAPNISEAATQOLIKEHGSYQQYNNREERGSRSYSEMIRTKNPCKVSNQLYLTMD
SEQ ID NO: 6 -----
SEQ ID NO: 7 EELVSEAPNINESAVQOLIKEHGSYQQTDRDVRGQKNYSFMLRTKNPCGKVNPNOLYLYAMDT
SEQ ID NO: 8 EELVSEAPNINEAATQOLIKEHGSYQQTDRDVRGQKNYSFMLRTKNPCGKVNPNOLYLYAMDT

180
181 LADEFGIGITLRLTTRQTFQLHGVKKNLKTVISITVIKNMGSSLGACGDLNRNVLAPAAPY
SEQ ID NO: 2 LADEFGIGITLRLTTRQTFQLHGVKKNLKTVISITVIKNMGSSLGACGDLNRNVLAPAAPY
SEQ ID NO: 4 LADEFGIGITLRLTTRQTFQLHGVKKNLKTVISITVIKNMGSSLGACGDLNRNVLAPAAPY
SEQ ID NO: 6 -----
SEQ ID NO: 7 LADEFGIGITLRLTTRQTFQLHGVKKNLKTVLSTVIKNMGSTLGAACGDLNRNVLAPAAPY
SEQ ID NO: 8 LADEFGIGITLRLTTRQTFQLHGVKKNLKTVLSTVIKNMGSTLGAACGDLNRNVLAPAAPY

FIG. 1A

241 300
SEQ ID NO: 2 VRKDILFAQETAENIPIALLTPQSGAYDLWVWDGEKIMSAAEPPEVTKARNDNTYGTNFPD
SEQ ID NO: 4 ARKDYLFAQQTAENIPIALLAPQSGFYDDIWVWDGEKILTSE-PPEVHQARNDNSHGTNFPD
SEQ ID NO: 6 -----
SEQ ID NO: 7 VKKDILFAQQTAENIPIALLTPQSGAYDLWVWDGEKIMSAAEPPEVTKARNDNSHGTNFPD
SEQ ID NO: 8 AKKDYMFQAKTADNIAALLTPQSGFYDDIWVWDGEKVMTAE-PPEVVKARNDNSHGTNFPD

301 360
SEQ ID NO: 2 SPEPIYGTQYLPRKFKIAVTVAAGDNSVDSLTDIGVVVVSDSAGEPVGFNIYVGGMGRT
SEQ ID NO: 4 SPEPIYGTQFLPRKFKIAVTVPDTSVDSLTDIGVVVVTDGGEPQGFNIYVGGMGRT
SEQ ID NO: 6 -----
SEQ ID NO: 7 SPEPIYGTQYLPRKFKIAVTAAAGDNSVDSLTDIGVVVVSDDAGEPIGFNIYVGGMGRT
SEQ ID NO: 8 SPEPIYGTQFLPRKFKIAVTVPDTSVDSLTDIFNTDIGVVVVSNEDGEPOGFNIYVGGMGRT

361 420
SEQ ID NO: 2 HRVETTEPRILADPLGYVPKEDILYAIKAIIVVTORENGRRDDRRYSRMKYLIDNWGIEKFR
SEQ ID NO: 4 HRLETTTEPRILAEPIGYVPKEDILYAVKAIIVVTORENGRRDDDRKYSRLKYLISSWGIEKFR
SEQ ID NO: 6 -----

SEQ ID NO: 7 HRVETTEPRILADPLGYVPKEDILYAIKAIIVVTORENGRRDDDRKYSRMKYMIDRWGIDRFR
SEQ ID NO: 8 HRMETTTEPRILAEPIGYVPKEDILYAVKAIIVVTORENGRRDDRRYSRLKYLISSWGIEKFR

421 480
SEQ ID NO: 2 AEVEKYGGKKFEDSRPLPEWQFNSYLGWQEQQGDGKLFYGVHVDNGRVAGQAKKTLREIE
SEQ ID NO: 4 SVVEQYYGKKFEPFRLPEWEEKFSYLGWHEQGDGKLFYGLHVVDNGRIGGNMKKTLREIE
SEQ ID NO: 6 AEAEKYYGKKFEDFRLPEWQFNSYLGWQEQQGDGKLFYGVHVDNGRLGGQAKKTLREIE
SEQ ID NO: 7 AEVEKYGGKKFESFRLPEWQFNSYLGWQEQQGDGKLFYGVHVDNGRVGGQAKKTLREIE
SEQ ID NO: 8 SVTEQYYGKKFQPCRELPEWEEKFSYLGWHEAGDGSLFCCGLHVVDNGRVKGAMKKALREIE

FIG. 1B

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540
481
SEQ ID NO: 2 KYNLEVSITPNQNLLICGIDQAWKDPITAALAQSGLLEPKVDPLNITSMACPALPLCPL
SEQ ID NO: 4 KYNLNVRITPNQNIIITDVRRAWKRPITTLAQAGLLQPRFVDPLNITAMACPAPLPLCPL
SEQ ID NO: 6 KYSLLDVSITPNQNLLICGVDQAWREPIITAALAQAQGLLEPKVDPLNITSMACPALPLCPL
SEQ ID NO: 7 KYNLDVSITPNQNLLICGIDQAWREPIITAALAQAQGLLEPKVDPLNLTAMACPALPLCPL
SEQ ID NO: 8 KYNLNVRLLTPNQNIIILCNIRQAWKRPITVLAQGGLLQPRYVDPLNLTAMACPAPLPLCPL

541
600
AITEAERGLPILKRIRAVFDKVGIKDHESVVVRITGCPNGCARPYMAEVGFVGDPNSY
AITEAERGPILKRIRDVFDKVGGLKYSESVVVRITGCPNGCARPYMAELGLVGDPNSY
AITEAERGLPILKRIRAVFDKVGIKDESVVVRITGCPNGCARPYMAEVGFVGDPNSY
AITEAERGLPILKRIRAVNKGVIKDSSESVVVRITGCPNGCARPYMAELGFVGDPKSY
AITEAERGPILKRVRAIFERVGLKYSESVVIRITGCPNGCARPYMAELGLVGDPNSY

660
601
QIWLGGTPNQSTLAEFMNKVKLQDIEKVLEPLFSYWNSTRQEGESFGSFTTRRTGFDKLK
QIWLGGGNHKQTSLARSFMDRVKILDLIEKVLEPLFYYWKQRQSKESFGDFTNRMGFEKLK
QIWLGGTPNQSTLAEFMNKVKLQDIEKVLEPLFSYWNSTRQEGESFGSFTNRMGFEQLK
QIWLGGTPNQSTLAEFFMDKVKLDDIEKVLEPLFTTYWNGTQEGESFGSFTNRMGFEKLK
QIWLGGTPNQSTLAKTFDKLKVQDLEKVLEPLFFHWRRKRSKESFGDFTNRMGFEKLG

SEQ ID NO: 2 QIWLGGTPNQSTLAEFMNKVKLQDIEKVLEPLFSYWNSTRQEGESFGSFTTRRTGFDKLK
SEQ ID NO: 4 QIWLGGGNHKQTSLARSFMDRVKILDLIEKVLEPLFYYWKQRQSKESFGDFTNRMGFEKLK
SEQ ID NO: 6 QIWLGGTPNQSTLAEFMNKVKLQDIEKVLEPLFSYWNSTRQEGESFGSFTNRMGFEQLK
SEQ ID NO: 7 QIWLGGTPNQSTLAEFFMDKVKLDDIEKVLEPLFTTYWNGTQEGESFGSFTNRMGFEKLK
SEQ ID NO: 8 QIWLGGTPNQSTLAKTFDKLKVQDLEKVLEPLFFHWRRKRSKESFGDFTNRMGFEKLG

FIG. 1C

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720

661

SEQ	ID	NO: 2	EVVNKWAESASAA
SEQ	ID	NO: 4	EYIERWEGPVVAPSRRHNKLFADETYESMDALAKLQNKTAAHQLAMEVIRNYVASNQNQGK
SEQ	ID	NO: 6	EVVNKWEGSASAA
SEQ	ID	NO: 7	EVVNKWAESPAA
SEQ	ID	NO: 8	EFVEKWEGIPESSSRYNLKLFADETYEAMDALASIQDKNAHQLAIEVVRNYVASQQNQGK

721

SEQ	ID	NO: 2	---
SEQ	ID	NO: 4	G-E
SEQ	ID	NO: 6	---
SEQ	ID	NO: 7	---
SEQ	ID	NO: 8	SMD

FIG. 1D